

AMENDMENTS TO THE CLAIMS

1. (Original) A high-function photocatalyst having its surface partially covered with a polymer having an anionic group.
2. (Original) The high-function photocatalyst according to claim 1, wherein the photocatalyst is a linear polymer.
3. (Original) The high-function photocatalyst according to claim 1 or 2, wherein the photocatalyst is in a form of a fine powder with particle size of 0.04 to 1 μm .
4. (Previously Presented) The high-function photocatalyst according to claim 1 or 2, wherein the polymer having an anionic group is poly(fluorine-substituted sulfonic acid).
5. (Previously Presented) The high-function photocatalyst according to claim 1 or 2, wherein the photocatalyst is spherical.
6. (Previously Presented) The high-function photocatalyst according to claim 1 or 2, wherein the photocatalyst is immobilized on a substrate.

7. (Original) A method of manufacturing a high-function photocatalyst comprising the steps of adding a spherical photocatalyst into a solution having a linear polymer having an anionic group dissolved in a solvent, stirring, and drying.

8. (Original) A method of manufacturing a high-function photocatalyst comprising the steps of immobilizing a photocatalyst on a substrate of a film or the like, applying thereon a solution dissolving a polymer having an anionic group, and drying.

9. (New) The high-function photocatalyst according to claim 1, wherein the polymer having an anionic group is selected from the group consisting of poly(fluorine-substituted sulfonic acid), poly(fluorine containing carboxylic acid), polystyrene sulfonic acid, and polyvinyl sulfonic acid.

10. (New) The method according to claim 7, wherein the linear polymer having an anionic group is selected from the group consisting of poly(fluorine-substituted sulfonic acid), poly(fluorine containing carboxylic acid), polystyrene sulfonic acid, and polyvinyl sulfonic acid.

11. (New) The method according to claim 8, wherein the polymer having an anionic group is selected from the group consisting of poly(fluorine-substituted sulfonic acid), poly(fluorine containing carboxylic acid), polystyrene sulfonic acid, and polyvinyl sulfonic acid.

12. (New) The high-function photocatalyst according to claim 1, wherein the photocatalyst is selected from the group consisting of titanium dioxide, zinc oxide, zirconium oxide and tungsten oxide.

13. (New) The method according to claim 7, wherein the photocatalyst is selected from the group consisting of titanium dioxide, zinc oxide, zirconium oxide and tungsten oxide.

14. (New) The method according to claim 8, wherein the photocatalyst is selected from the group consisting of titanium dioxide, zinc oxide, zirconium oxide and tungsten oxide.

15. (New) A photocatalyst composition, which comprises:
a photocatalyst powder; and
an anionic linear polymer that partially covers a surface of the photocatalyst powder.

16. (New) The photocatalyst composition according to claim 15, wherein the photocatalyst powder has a shape that is spherical, flat, tubular or fibrous.

17. (New) The photocatalyst composition according to claim 15, wherein the anionic linear polymer is selected from the group consisting of poly(fluorine-substituted sulfonic acid), poly(fluorine containing carboxylic acid), polystyrene sulfonic acid, and polyvinyl sulfonic acid.

18. (New) The photocatalyst composition according to claim 15, wherein the photocatalyst is selected from the group consisting of titanium dioxide, zinc oxide, zirconium oxide and tungsten oxide.

19. (New) A high-function photocatalyst having its surface partially covered with a polymer having an anionic group, wherein the anionic group attracts pollution materials to the photocatalyst.

20. (New) The high-function photocatalyst according to claim 1, wherein the anionic group attracts pollution materials to the photocatalyst.

21. (New) The method according to claim 7, wherein the anionic group attracts pollution materials to the photocatalyst.

22. (New) The photocatalyst composition according to claim 15, wherein the anionic group attracts pollution materials to the photocatalyst.

23. (New) A high-function photocatalyst having its surface in part covered with a compound which has an adsorption-ability on a substance having a positive electric charge in water.

24. (New) The high-function photocatalyst according to claim 1, wherein the polymer having an anionic group has an adsorption-ability on a substance having a positive charge in water.

25. (New) The high-function photocatalyst according to claim 1, wherein an amount of the polymer to be used comprises 0.05 to 5 ml in a 5% by weight solution per g of photocatalyst.